

Appln No. 10/754,453  
 Amdt date October 16, 2006  
 Reply to Office action of July 14, 2006

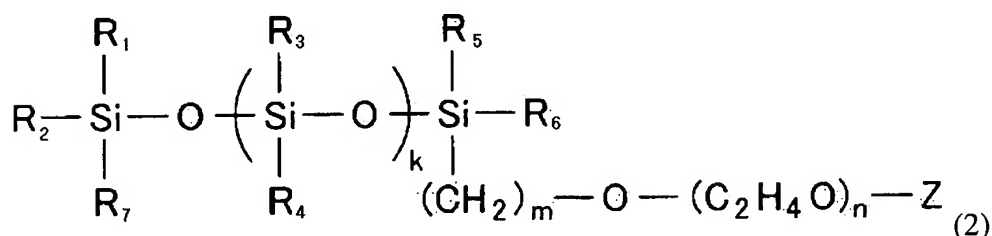
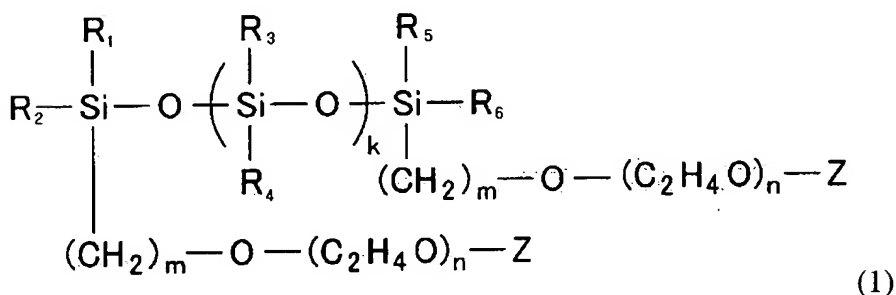
**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Please amend claims 10 and 14.

1. (Original) A non-aqueous electrolyte comprising:  
 a cyclic carbonate;  
 a lithium salt; and  
 a polyether-modified silicon oil represented by formulas 1 or 2 in which a polyether chain is bonded to a terminal end of a linear polysiloxane chain:



where k is an integer from 0 to 10;

m is a natural number from 2 to 4;

n is a natural number from 1 to 4;

R<sub>1</sub> to R<sub>7</sub> are independently or identically, selected from hydrogen or C<sub>1</sub> to C<sub>5</sub> alkyls; and

Z is CH<sub>3</sub> or C<sub>2</sub>H<sub>5</sub>.

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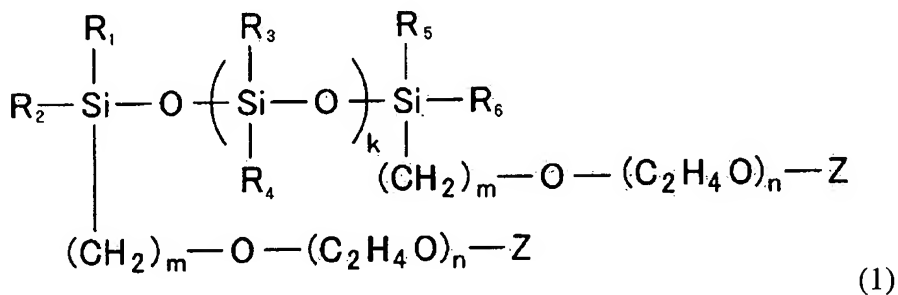
2. (Original) The electrolyte of claim 1, wherein the polyether-modified silicon oil has a viscosity of less than 10cSt at 25°C.

3. (Original) The electrolyte of claim 1, wherein the polyether-modified silicon oil has a flash point of 120°C or more.

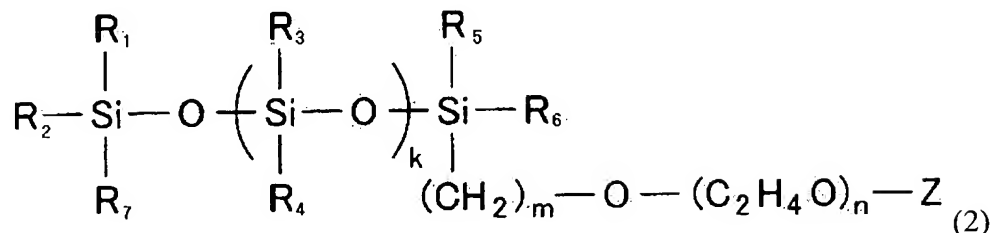
4. (Original) The electrolyte of claim 1 further comprising a chain carbonate.

5. (Original) The electrolyte of claim 1 further comprising a fluorinated cyclic carbonate.

6. (Original) A rechargeable lithium battery comprising:  
 a positive electrode;  
 a negative electrode; and  
 a polyether-modified silicon oil represented by formulas 1 or 2 in which a polyether chain is bonded to a terminal end of a linear polysiloxane chain, a cyclic carbonate and a lithium salt:



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where k is an integer from 0 to 10;

m is a natural number from 2 to 4;

n is a natural number from 1 to 4;

R<sub>1</sub> to R<sub>7</sub> are independently or identically, selected from hydrogen or C<sub>1</sub> to C<sub>5</sub> alkyls; and  
 Z is CH<sub>3</sub> or C<sub>2</sub>H<sub>5</sub>.

7. (Original) The rechargeable lithium battery of claim 6, wherein the negative electrode comprises a thin layer comprising a compound selected from the group consisting of polyacrylate compounds, aziridine compounds, fluorinated cyclic carbonates and mixtures thereof.

8. (Original) The rechargeable lithium battery of claim 6, wherein the non-aqueous electrolyte further comprises a chain carbonate.

9. (Original) The rechargeable lithium battery claim 6, wherein the non-aqueous electrolyte further comprises a fluorinated cyclic carbonate.

10. (Original) An electrolyte for a rechargeable lithium battery comprising:  
 a polyether-modified silicon oil having a viscosity of less than 10cSt, a cyclic carbonate,  
 and a lithium salt, wherein the polyether-modified silicon oil includes end silicons, wherein at least one end Si atom includes a terminal bond to a polyether group.

11. (Original) The electrolyte of claim 10, wherein the polyether-modified silicon oil has a flash point of 120°C or more.

12. (Original) The electrolyte of claim 10 further comprising a chain carbonate.

13. (Original) The electrolyte of claim 10 further comprising a fluorinated cyclic carbonate.

14. (Previously Presented) A rechargeable lithium battery comprising:  
a positive electrode;  
a negative electrode; and  
an electrolyte comprising a polyether-modified silicon oil having a viscosity of less than 10cSt, a cyclic carbonate, and a lithium salt wherein the polyether-modified silicon oil includes end silicons with terminal bonds consisting of Si-C or Si-H bonds and wherein at least one end Si atom includes a terminal bond to a polyether group.

15. (Original) The rechargeable lithium battery of claim 14, wherein the negative electrode comprises a thin layer comprising a compound selected from the group consisting of polyacrylate compounds, aziridine compounds, and fluorinated cyclic carbonates, or a combination thereof on a surface thereof.

16. (Original) The rechargeable lithium battery of claim 14, wherein the electrolyte further comprises a chain carbonate.

17. (Original) The rechargeable lithium battery claim 14, wherein the electrolyte further comprises a fluorinated cyclic carbonate.